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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/815,029	03/31/2004	Sachin Govind Deshpande	SLA1488	7808

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P. O. BOX 270829
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EXAMINER

KASSA, YOSEF

ART UNIT	PAPER NUMBER
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2624

MAIL DATE	DELIVERY MODE
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01/29/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/815,029

Applicant(s)

DESHPANDE, SACHIN GOVIND

Examiner

YOSEF KASSA

Art Unit

2624

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-74 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6, 13-15, 36, 37, 39-45 and 51-53 is/are rejected.
- 7) ☒ Claim(s) 7-12, 16-35, 38, 46-50 and 54-74 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 03/31/04, 06/13/05.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-6, 13-15, 36, 37, 39-45 and 51-53 are rejected under 35 U.S.C. 103(a) as being unpatentable over Devaney et al (U.S. Patent 5819035), and further in view of Kryukov et al (U.S Patent 7003174).

Regard to claim 1, Devaney discloses accepting a plurality of image pixels (refer to col. 25-30);

in response to the first group data, deciding if the test pixel includes image ringing artifacts (refer to col. 7, lines 15-22);

collecting data from a first group of pixels neighboring a test pixel (refer to col. 5, lines 12-25);

replacing the test pixel actual value with FV (refer to col. 5, lines 22-30).

Devaney does not disclose expressly for in response to the second group data, generating a filtered value. However, at the same field of endeavor, Kryukov discloses this feature (please refer to col. 7, lines 15-22). At the time of the invention, it would have been obvious to a person

of ordinary skill in the art to incorporate the teaching Kryukov image filtering system into Devaney system. The suggestion/motivation for doing so would have been to provide the process of reducing artifacts in an image previously processed by block transformation (refer to col. 5, lines 45-60 or Kryukov). Therefore, it would have been obvious to combine Kryukov with Devaney to obtain the invention as specified in claim 1.

Regard to claim 2, Devaney discloses wherein collecting data from a second group of pixels neighboring a test pixel includes performing a mathematical operation on the second group of pixels (refer to col. 5, lines 12-22).

Regard to claim 3, Devaney discloses wherein collecting data from a first group of pixels neighboring a test pixel includes performing a mathematical operation on the first group of pixels (refer to col. 5, lines 12-22).

Regard to claim 4, Devaney discloses wherein collecting data from a first group of pixels neighboring a test pixel further includes comparing the results of the mathematical operation to a threshold (refer to col. 8, lines 12-16).

Regard to claim 5, Devaney discloses wherein performing a mathematical operation on the first group of pixels includes: defining a matrix; and, multiplying the first group of pixels by the matrix (refer to col. 5, lines 12-17 and col. 8, lines 12-18).

Regard to claim 6, Devaney discloses wherein the matrix is defined such that a zero value is assigned to the position of the test pixel in the matrix (refer to col. 11, lines 9-16).

Regard to claim 13, Devaney discloses decoding compressed image information; and, wherein accepting a plurality of image pixels includes accepting the decoded image information (refer to col. 3, lines 35-42).

Regard to claim 14, Devaney discloses wherein collecting data from a second group of pixels neighboring the test pixel includes adding the test pixel to the second group of pixels (refer to col. 8, lines 12-23).

Regard to claim 15, Devaney fails to disclose collecting data from a second group of pixels neighboring the test pixel includes collecting data from 8 pixels neighboring the test pixel. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to provide collecting data from 8 pixels neighboring. Applicant's have not disclosed that collecting data from 8 pixels neighboring provides an advantage, is used for a particular purpose or solves a stated problem. One of ordinary skill in the art, furthermore, would have expected applicant's invention to perform equally well with either collecting data from 6 pixels neighboring taught by Devaney or the claimed limitation, collecting data from 8 pixels neighboring, because both perform the same function that is, collecting neighboring pixels information. Therefore, it would have been obvious to combine to one of ordinary skill in this art to modify Devaney to obtain the invention as specified in claim 15.

Regard to claim 39, Devaney disclose generating a map value for each pixel in the second group; and, using pixels from the second group to calculate FV, if they are equal to a first map value (refer to col. 8, lines 60-64 and Fig. 7A).

Regard to claim 41, Devaney disclose wherein the filter performs a mathematical operation on the second group of pixels (refer to col. 5, lines 1-5).

Regard to claim 42, Devaney disclose wherein the decision unit performs a mathematical operation on the first group of pixels (refer to col. 12-15).

Regard to claim 43, Devaney disclose wherein the decision unit compares the results of the mathematical operation to a threshold (refer to col. 8, lines 12-18).

Claims 44 and 45 are similarly analyzed the same as claims 5 and 6.

Claims 40-45 are similarly analyzed the same as claims 1-6.

Claims 36 and 37 are similarly analyzed the same as claims 1 and 5.

Claims 51-53 are similarly analyzed the same as claims 13-15.

Allowable Subject Matter

2. Claims 7-12, 16-35, 38, 46-50 and 54-74 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Other Prior Art Cited

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

US Patent No. (5598184), (5581371), (6728414), (6539060) and (6115503).

Conclusion

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to YOSEF KASSA whose telephone number is (571) 272-7452. The examiner can normally be reached on Monday-Thursday from 8:00 AM to 6:30 PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian Werner can be reached on (571) 272-7401. The fax phone numbers for the organization where this application or proceeding is assigned is (571) 273-8300 for regular communication and (571) 273-8300 for after Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the customer service office whose telephone number is (571) 272-2600.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

01/22/2008.

YOSEF KASSA
PRIMARY EXAMINER

A handwritten signature in black ink, appearing to read 'Yosef Kassa', is written over the printed name and title.